

# STILLAGUAMISH– NORTH FORK STILLAGUAMISH CHINOOK

This stock was called Stillaguamish summer Chinook in the 1992 SASSI. In this SaSI revision run timing designations have been dropped from most Puget Sound Chinook stock names because they have been inconsistently applied. The major spawning location (North Fork) has been substituted in this stock name.

## STOCK STATUS

**1992 STATUS**

**Depressed**

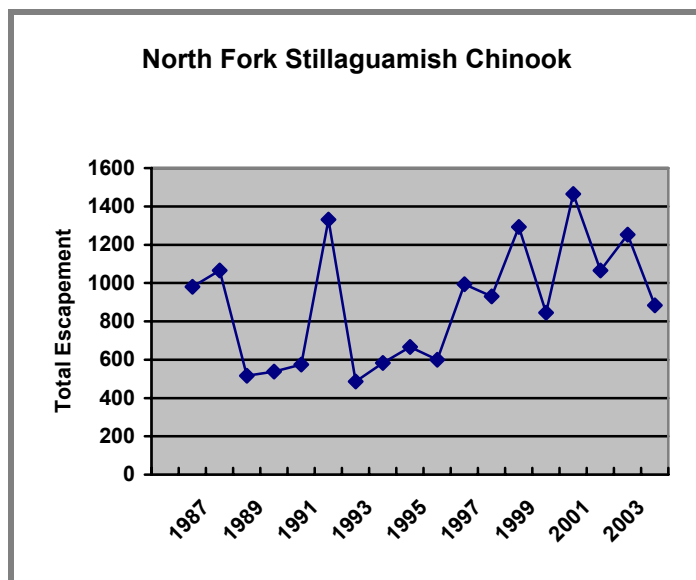
**2002 STATUS**

**Depressed**

## STOCK STATUS RATING DATA

**USEFULNESS FOR RATING STOCK STATUS:** Very Good

YEAR	TOTAL ESCAPEMENT
1986	980
1987	1,065
1988	516
1989	537
1990	575
1991	1,331
1992	486
1993	583
1994	667
1995	599
1996	993
1997	930
1998	1,292
1999	845
2000	1,464
2001	1,066
2002	1,253
2003	883



Data are total escapement estimates based on redd counts in the entire North Fork Stillaguamish basin.

Stock status is rated **Depressed** in 2002 due primarily to low stock productivity. A mean spawner number of 722 for brood years 1988 through 1997 should produce a mean of 5,958 recruits. However, the observed mean is 1,993 recruits. In addition, the mean number of spawners is less than the recovery goal of 4,000 spawners established for the stock by EDT analysis (Koenings, Williams and Goodridge 2002).

## STOCK DEFINITION

North Fork Stillaguamish Chinook were identified as a stock based on their distinct spawning distribution, early spawning timing and genetic composition.

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**SPAWNING DISTRIBUTION:** Most spawning takes place in the North Fork Stillaguamish River from the mouth upriver to RM 34.4, especially between RM 14.3 to 30.0. Spawning is also observed in the Boulder River (RM 0.0 to 2.9), Squire Creek (RM 0.0 to 4.0), French Creek (RM 0.0 to 2.9), Deer Creek (RM 0.0 to 1.5), and Grant Creek (RM 0.0 to 0.4). In years of higher stream flows, spawning can also take place in smaller tributaries including Rollins, Ashland, Furland, Brown's, and Fortson creeks.

**SPAWNING TIMING:** Spawning generally occurs from mid-August through the end of October.

**GENETIC ANALYSIS:** Allozyme analysis has shown that North Fork Stillaguamish Chinook are genetically distinct from the South Fork stock (Marshall et al. 1995). North Fork Chinook more closely resemble Skagit basin Chinook stocks than do South Fork Chinook. About 11,000 years ago, the Sauk-Suiattle river system flowed into the North Fork until glacial erosion lowered the divide between the Skagit and Stillaguamish basins, and the Sauk-Suiattle became a tributary of the Skagit (Marshall et al. 1995).

## STOCK ORIGIN

This is a **native** stock with **composite** production. A hatchery supplementation-based recovery program for North Fork Chinook was initiated in 1980. This program continues today with an annual goal of 200,000 fingerlings released. Although total spawner abundance has increased, the estimated numbers of naturally produced spawners remains at about 400 to 600 fish annually (Puget Sound TRT abundance and productivity tables), which is cause for concern.

Green River-origin Chinook were released into the North Fork Stillaguamish nearly every year from the early 1950s through 1974.